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Irileka, a new heteropodine genus (Araneae: Heteropodidae) from Western Australia

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Abstract – A new genus of the Heteropodinae, *Irileka*, and a new species, *I. iridescens* are described from Western Australia. *Irileka* is similar to *Keilira* Hirst from south-eastern Australia but differs from the latter in leg spination, cheliceral dentition and in the male and female genitalia. *Irileka* is more similar to unnamed species from Queensland.

INTRODUCTION

In the first of a series of papers on Australian huntsman spiders, Hirst (1989) described the new genus *Keilira* from south eastern Australia, mentioning that similar species of a possibly related genus were to be found in north Queensland. The description of a further new genus, *Irileka* from Western Australia, in this paper is a step towards clarification of those Queensland species.

MATERIALS AND METHODS

All measurements are in millimetres, made with an eyepiece graticule. Eye diameters, interspaces and MOQ measurements are expressed as relative to the diameter of an AME. Drawings were done with the aid of a camera lucida on a Wild microscope. All abbreviations are standard for the Araneae. Material is deposited in the Western Australian Museum, Perth (WAM).

SYSTEMATICS

Genus *Irileka* gen. nov.

Type Species

Irileka iridescens sp. nov.

Diagnosis

Small heteropodine spider with five pairs of spines ventrally on anterior tibiae. Male with iridescence on anterior of body; embolus thick at base then tapering to long thin straight tip; conductor absent. Female with elongate fossa and widely separated spermathecal sacs.

Description

Carapace raised, convex in profile, highest near fovea, sloping gently to clypeus (Figure 1). Foveal groove weak or indistinct. Anterior eye row slightly recurved, eyes subequal. Posterior eye row slightly procurved. Clypeus about half width of an AME. Cheliceral fang groove with three teeth on promargin, three teeth on retromargin (Figure 2). Labium about 2/3 times as long as broad. Sternum more or less longer than broad, slightly convex. Legs 2143. Anterior legs with five ventral pairs of spines on tibia with one pair apically (Figure 3). Metatarsi usually with 3 spines prolaterally, patellae lack spines. Female palp tarsal claw with four short teeth. Male embolus thick at base, tapering to a pointed tip. Palpal tibia relatively long with a small prodorsal distal extension and anteriorly directed retrolateral apophysis. Female epigynum weakly sclerotized anterior and lateral to fossa; copulatory openings lateral to fossa; spermathecal sacs widely spaced.

Etymology

The generic name *Irileka* is derived from a re-arrangement of letters in the related genus, *Keilira*.

Irileka iridescens sp. nov.

Figures 1–10, Table 1

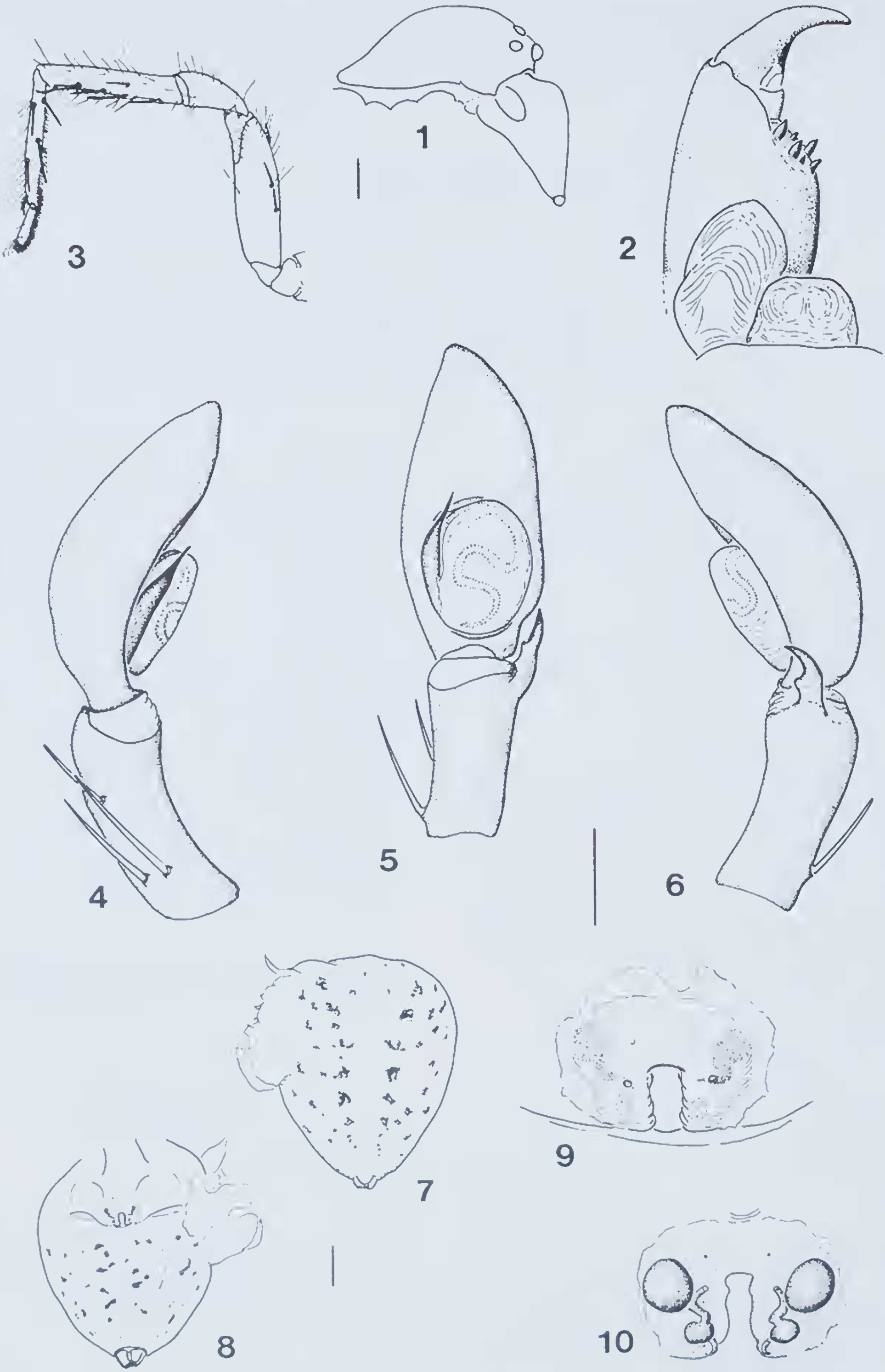
Material Examined

Holotype

♂, Bandicoot Bay, Barrow Island, Western Australia, Australia, 20°52'04"S, 115°20'01"E, wet pitfall traps, 4 November–3 December 1993, M.S. Harvey, J.M. Waldock (WAM 96/799).

Allotype

Australia: Western Australia, ♀, between Roy Hill [22°37'S,119°57'E] and Nullagine [21°53'S, 120°07'E], in flood debris after cyclone 'Dean', 2–3 November 1980, A.M. Douglas, R. Shardlow (WAM 88/1751).



Figures 1–10 *Irileka iridescens* gen. et sp. nov. 1–6, holotype male: 1 carapace profile; 2 labium, right maxilla and chelicera, 3 right leg II, prolateral; 4–6 left palp, 4 prolateral; 5 ventral; 6 retrolateral. 7–10, allotype female, 7–8 abdomen, 7 dorsal, 8 ventral; 9–10 epigynum, 9 ventral; 10 dorsal. Scale lines: Figures 1, 3, 7, 8 = 1 mm; figures 2, 4, 5, 6, 9, 10 = 0.5 mm.

Diagnosis

Male with iridescence on anterior of carapace, base of chelicerae, maxillae and coxae I; palpal tibial apophysis sickle-shaped; embolus thick at base then tapering to thin straight tip; conductor absent. Female with elongate fossa and widely separated spermathecal sacs.

Description

Male

Carapace length 4.88, width 4.04. Abdomen length 4.45, width 3.12.

Colour in alcohol: Carapace yellow posteriorly, yellow-brown laterally, red-brown anteriorly, intense brown suffusion; setae brown; ocular area, base of chelicerae, maxillae and coxae I reflect iridescent hues. Chelicerae shiny dark red-brown; sparse long grey-brown setae. Sternum yellow, but darker adjacent coxa I. Coxae yellow, but coxa I brown except apically. Legs yellow to yellow-brown, tibiae and metatarsi with faint markings of suffusion. Abdomen dorsally cream with brown setae and spots of suffusion; venter similar.

Eyes: AME diameter 0.35. AME: ALE: PME: PLE = 1: 0.91: 0.66: 0.86. Interspaces: AME-AME 0.57; AME-ALE 0.66; PME-PME 1.49; PME-PLE 1.77; AME-PME 1.31; ALE-PLE 0.97. MOQ: Anterior width: posterior width: length = 2.57: 2.80: 2.91. Width of clypeus to AME: 0.46.

Chelicerae: Promargin with 3 teeth, middle largest; retromargin with 3 teeth, middle and distal teeth subequal.

Labium: Length 0.71, width 1.05; flattened corrugiform surface (Figure 2), scattered short grey setae. Maxillae: Length 1.56, width 1.05; flattened corrugiform surface, sparse long grey setae. Sternum: Length 1.99, width 2.06; slightly convex; long, numerous grey setae.

Legs: (Table 1). Scopula dense on tarsi and apically on metatarsi. Spines: Leg I, fe d2 p2 r3, ti r2 v10, mt p3 r2 v4; Leg II, fe d2 p3 r1, ti p2 r1 v10, mt p3 r2 v4; Leg III, fe d2 p3 r1, ti p2 r1 v6, mt p3 r2 v4; Leg IV, fe d2 p1, ti p2 v6, mt p4 r3 v4; Palp, fe d2 p1 all distal, ti d1 p3. Patellae lack spines. Claws: Teeth short; 6 on proclaw, 5 on retroclaw.

Abdomen: Integument lifted, 'V' shaped pattern of spots barely visible. Setae of short to moderate length.

Palps: Embolus straight, thick at base tapering to pointed tip along prolateral side of tegulum (Figures 4, 6). Tibial apophysis sickle-shaped (Figure 5).

Female

As in holotype but for the following:

Carapace length 4.31, width 3.69. Abdomen length 5.59, width 4.25.

Colour in alcohol: Carapace yellow-orange, brown suffusion, dark brown suffusion in ocular area. Chelicerae red-brown, distal half with brown suffusion. Maxillae and labium orange-brown. Sternum yellow. Legs yellow-orange, some circular marks of suffusion on tibiae and metatarsi dorsally. Abdomen damaged; cream with spots of brown suffusion, median spots form 'V' pattern (Figure 7), scattered spots ventrally (Figure 8).

Eyes: AME diameter 0.32. AME: ALE: PME: PLE = 1: 0.97: 0.72: 0.88. Interspaces: AME-AME 0.38; AME-ALE 0.44; PME-PME 1.22; PME-PLE 1.50; AME-PME 1.19; ALE-PLE 0.66. MOQ: Anterior width: posterior width: length = 2.38: 2.66: 2.94. Width of clypeus to AME: 0.53.

Labium: Length 0.56, width 0.93. Maxillae: Length 1.28, width 0.80; convex, smooth. Sternum: Length 1.94, width 1.87.

Legs: (Table I). Spines: Leg I, fe p3, ti r2; Leg II, fe r3, t1 r2; Leg III, fe r2; Leg IV, fe p2, ti r2 mt r3.

Genitalia: Epigynum small, weakly sclerotized anteriorly and laterally to narrow fossa (Figure 9). Copulatory openings lateral to fossa. Spermathecae widely separated (Figure 10).

Distribution

Known only from Barrow Island and the Pilbara in northern Western Australia.

Remarks

Although the types are from disjunct localities, comparable characters of the male and female appear to be in agreement and in the lack of other material and evidence to the contrary they are considered to be conspecific. *Irileka* differs from

Table 1 Leg measurements (in mm) of *Irileka iridescens* gen. et sp. nov. values are for holotype male with allotype female in parentheses

	Leg I	Leg 2	Leg 3	Leg 4	Palp
Patella	2.06 (1.94)	2.17 (2.03)	1.62 (1.61)	1.55 (1.48)	0.86 (0.81)
Tibia	3.49 (3.21)	3.82 (3.56)	2.39 (2.19)	2.78 (2.62)	1.10 (1.06)
Metatarsus	3.31 (3.04)	3.46 (3.29)	2.31 (2.15)	3.00 (2.93)	– –
Tarsus	1.10 (1.02)	1.15 (1.05)	0.99 (0.96)	1.02 (0.98)	1.66 (1.54)
Total	13.69 (12.97)	14.91 (14.16)	10.52 (10.00)	12.05 (11.67)	5.27 (4.89)

Keilira in the larger size, in the PE being relatively smaller, in lacking denticles between the retromarginal and promarginal cheliceral teeth, in the narrower labium, in having 5 ventral spine pairs on anterior tibiae, 3 spines on metatarsi I–III prolaterally, in the long palp tibia and in the male palpal tibial apophysis, in having a long tapered embolic tip, in lacking an embolic guide or conductor and in the curved ejaculatory duct, while the female differs in having an elongate fossa, widely spaced spermathecae and copulatory openings situated lateral to fossa.

A further unnamed genus (or genera) of the Heteropodinae occurs in Queensland, but is not congeneric with *Keilira* (Hirst 1989). The unnamed species appear to be more closely related to *Irileka* in sharing five or six ventral spine pairs on anterior tibia with the distal pair, lacking in *Keilira*, being present. Males lack a conductor, but a pale membraneous area is present apically on the tegulum and is possibly a vestigal conductor. Carapace shape differs in being lower and flattish above, 3.5 times longer than high whereas in *Irileka* and *Keilira* the carapace is convex and 2.5 times longer than high. Median denticles are present on the chelicerae, prolateral metatarsi have two relatively long spines and patellae are often with spines. Further differences in male and female genitalia exclude inclusion in either *Irileka* or *Keilira*.

Etymology

The specific name refers to the iridescent colours seen on the male under light.

ACKNOWLEDGEMENTS

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REFERENCE

Hirst, D. (1989). A new genus of huntsman spider from south eastern Australia. *Transactions of the Royal Society of South Australia* **113**: 7–13.

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